

**Annual European Congress of Rheumatology
(EULAR 2018)**

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**ONSET OF DEPRESSIVE SYMPTOMS SIGNIFICANTLY ASSOCIATED WITH DISEASE
SEVERITY IN PATIENTS WITH KNEE OSTEOARTHRITIS**

Two measures of disease severity cumulatively contribute to depressive symptom onset;
physical performance and structural severity

Amsterdam, The Netherlands, 14 June 2018: The results of a study presented today at the Annual European Congress of Rheumatology (EULAR 2018) demonstrate that among individuals with radiographic knee osteoarthritis (OA), decreased physical performance and greater structural disease severity are associated with a higher risk of experiencing depressive symptoms.¹

Knee OA is a chronic and disabling condition that is one of the leading causes of pain and functional limitations worldwide.^{2,3} Depressive symptoms are a frequent comorbidity affecting one in five patients, twice the amount of the general public.⁴ Furthermore, there is growing evidence that psychological factors have a significant impact on pain and physical function in OA patients.² Despite this, depressive symptoms are often under-recognised by treating rheumatologists, and therefore, may be under-treated in individuals with arthritis.⁴

“We know that disease progression in patients with knee OA can lead to deteriorating psychosocial health,” said Professor Thomas Dörner, Chairperson of the Abstract Selection Committee, EULAR. “The results of this study provide valuable insights into the components of OA disease severity which are related to depression onset.”

The study examined three predictors of OA disease severity; structural severity (joint space width), physical performance (gait speed), and pain (subscale of the WOMAC* Index). Each measure was operationalized as time-averaged severity and grouped in to quintiles, and results showed that depressive symptom onset was associated with increased severity for two of the three predictors. In order of increasing magnitude, the odds ratios comparing highest to lowest severity quintiles were 1.60 for pain (95% CI: 0.81-3.16), 2.08 for gait speed (95% CI: 1.16-3.75), and 2.25 for joint space width (95% CI: 1.27-3.99).

“Given the results of our study, we believe that to effectively treat individuals with radiographic knee OA and comorbid depressive disorder, it is necessary to use a combined treatment strategy of two interventions delivered in parallel to simultaneously target each condition,” said Alan M. Rathbun, Ph.D., M.P.H., Research Associate in the Departments of Epidemiology and Medicine at the University of Maryland School of Medicine and Special Fellow at the Geriatric Research Education and Clinical Center in the VA Maryland Health Care System.

* Western Ontario and McMaster Universities Osteoarthritis (WOMAC).

Eligible participants (n=1,652) were selected from the Osteoarthritis Initiative who had radiographic disease[†] and were classified as without depressive symptoms[‡] at study baseline. OA disease severity was assessed at the beginning of the study using joint space width, 20-meter gait speed and pain[§] and then at three annual follow-up visits. These severity predictors were evaluated as a moving average at each time point then categorized into quintiles. Depressive symptom onset was assessed at four annual follow-up visits using the CES-D scale. Statistical modelling and analysis evaluated the association between each disease severity predictor and onset of depressive symptoms.

Abstract number: OP0003

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NOTES TO EDITORS

For further information on this study, or to request an interview with the study lead, please do not hesitate to contact the EULAR Press Office:

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About Rheumatic and Musculoskeletal Diseases

Rheumatic and musculoskeletal diseases (RMDs) are a diverse group of diseases that commonly affect the joints but can affect any organ of the body. There are more than 200 different RMDs, affecting both children and adults. They are usually caused by problems of the immune system, inflammation, infections or gradual deterioration of joints, muscle and bones. Many of these diseases are long term and worsen over time. They are typically painful and limit function. In severe cases, RMDs can result in significant disability, having a major impact on both quality of life and life expectancy.⁵

About 'Don't Delay, Connect Today!'

'Don't Delay, Connect Today!' is a EULAR initiative that unites the voices of its three pillars; patient (PARE) organisations, scientific member societies and health professional associations - as well as its international network - with the goal of highlighting the importance of early diagnosis and access to treatment. In the European Union alone, over 120 million people are currently living with a rheumatic disease (RMD), with many cases undetected.⁶ The 'Don't Delay, Connect Today!' campaign aims to highlight that early diagnosis of RMDs and access to treatment can prevent further damage, and also reduce the burden on individual life and society as a whole.

[†] Kellgren-Lawrence [K-L] grade 2, 3, or 4.

[‡] Center for Epidemiological Studies Depression [CES-D] Scale ≤ 16 .

[§] Measured using a subscale of the Western Ontario and McMaster Universities Osteoarthritis (WOMAC) Index.

About EULAR

The European League against Rheumatism (EULAR) is the European umbrella organisation representing scientific societies, health professional associations and organisations for people with RMDs. EULAR aims to reduce the burden of RMDs on individuals and society and to improve the treatment, prevention and rehabilitation of RMDs. To this end, EULAR fosters excellence in education and research in the field of rheumatology. It promotes the translation of research advances into daily care and fights for the recognition of the needs of people with RMDs by the EU institutions through advocacy action.

To find out more about the activities of EULAR, visit: www.eular.org.

References

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- ⁴ Rathbun AM, Yau MS, Shardell M, *et al.* Depressive symptoms and structural disease progression in knee osteoarthritis: data from the Osteoarthritis Initiative. *Clin Rheumatol* 2017;36(1):155-63.
- ⁵ van der Heijde D, *et al.* Common language description of the term rheumatic and musculoskeletal diseases (RMDs) for use in communication with the lay public, healthcare providers and other stakeholders endorsed by the European League Against Rheumatism (EULAR) and the American College of Rheumatology (ACR). *Annals of the Rheumatic Diseases*. 2018;doi:10.1136/annrheumdis-2017-212565. [Epub ahead of print].
- ⁶ EULAR. 10 things you should know about rheumatic diseases fact sheet. Available at: <https://www.eular.org/myUploadData/files/10%20things%20on%20RD.pdf> [Last accessed April 2018].